

## Patent Abstracts of Japan

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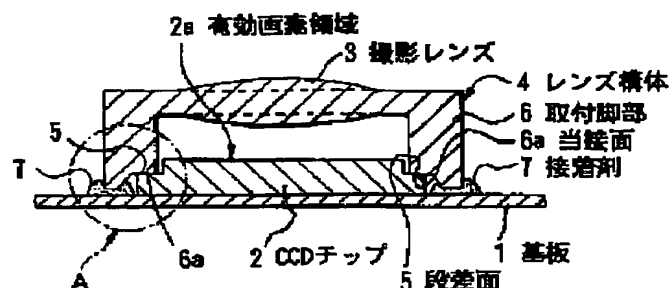
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TITLE : CCD CHIP AND ITS FORMATION



**ABSTRACT :** PROBLEM TO BE SOLVED: To evade the influence of stress in mounting and obtain reliability and excellent precision by fixing the fitting leg part of a lens structure in contact with a position outside an effective pixel area of the step surface of a CCD chip on a substrate.

**SOLUTION:** A solid-state image pickup element CCD chip 2 is fixed on the substrate 1, and on the peripheral surface having clearance with the effective pixel area 2a, a step surface 5 which is one stage lower is formed. Further, an abutting surface 6a to be made to abut against the step surface 5 is formed in side the fitting leg part 6 of the lens structure 4. Here, the abutting surface 6a of the lens structure 4 is positioned abutting the step surface 5, and fixed by applying an adhesive 7. Thus, the lens structure is fitted at the position outside the effective pixel area of the CCD chip and then even when stress at the time of the mounting of the lens structure or stress due to strain stress due to environmental changes after the mounting is applied, its influence does not extend to the surface of the part where the effective pixel area is provided, thereby obtaining the device which is reliable and highly precise.

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